

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) An apparatus for generating an angular sweep of a directed propagation of electromagnetic radiation, comprising:

a first reflector adapted to move rotationally oscillate over a first angular range of movement and then over a second angular range of movement directionally opposite the first angular range of movement; and

a first and a second fixed reflector to reflect the directed propagation of electromagnetic radiation incident upon and reflected by the first reflector onto the fixed reflectors and back to the first reflector;

the first fixed reflector is contiguous with the second fixed reflector and the first fixed reflector is angled with respect to the second fixed reflector;

wherein the first angular range of movement of the first reflector creates an increasing sweep of the directed propagation of electromagnetic radiation with each reflection from the first reflector.

2.-3. (Cancelled)

4. (Previously Presented) The apparatus of claim 1, wherein the directed propagation of electromagnetic radiation is selected from a group comprising a laser beam, microwave energy, visible light, non-visible light, infra-red radiation, radar waves, radio waves and combinations thereof.

5. (Currently Amended) The apparatus of claim 1, wherein the first reflector and the at least two fixed reflectors are mirrors.

6. (Original) The apparatus of claim 5, wherein the mirrors are planar.

7. (Original) The apparatus of claim 1, wherein a means for oscillation drives the movement of the first reflector.

8. (Original) The apparatus of claim 1, wherein the movement of the first reflector is adapted to have a variable amplitude.

9. (Original) The apparatus of claim 1, wherein the movement of the first reflector is adapted to have a variable frequency.

10. (Original) The apparatus of claim 1, wherein the movement of the first reflector is adapted to have a variable frequency and a variable amplitude.

11. (Currently Amended) The apparatus of claim 1, wherein the wherein a distance between the first reflector and at least one of the fixed reflectors is adjustable.

12.-20. (Cancelled)

21. (Currently Amended) An apparatus for generating an angular sweep of a directed propagation of electromagnetic radiation, comprising:

a first reflector adapted to oscillate through a first angular range of movement and a second angular range of movement directionally opposite the first angular range of movement, the first reflector passing through a reference plane when the first reflector is at a mid-point of the first angular range of motion;

a first secondary reflector generally facing the first reflector and rotationally offset from being parallel with the reference plane by a first angle; and

a second secondary reflector generally facing the first reflector and rotationally offset from being parallel with the reference plane by a second angle that is different from the first angle;

at least two secondary reflectors;

the first reflector and the first and the second secondary reflectors disposed to create a reflective path onto and off of the first reflector at least twice through the first angular range of movement.;

wherein a distance between the first and at least one of the secondary reflectors is adjustable and at least one of the secondary reflectors is adapted to oscillate.

22. (Currently Amended) The apparatus of claim 4-21 wherein the directed propagation of electromagnetic radiation is visible electromagnetic radiation, non-visible electromagnetic radiation, or combinations thereof.

23. (Previously Presented) The apparatus of claim 11 wherein at least one reflector is slidable along a track.

24. (Cancelled)

25. (Cancelled)

26. (Currently Amended) The apparatus of claim 24-50, further comprising a track, wherein the at least one of the first secondary reflector and the second secondary reflector is slidable along the track to adjust the distance.

27. (Currently Amended) The apparatus of claim 24-51 wherein the at least one of the secondary reflectors is adapted to oscillate at a lower amplitude than the first reflector.

28.-49. (Cancelled)

50. (New) The apparatus of claim 21 wherein a distance between the first reflector and at least one of the secondary reflectors is adjustable.

51. (New) The apparatus of claim 21 wherein at least one of the secondary reflectors is adapted to oscillate.

52. (New) The apparatus of claim 21 wherein the first and the second secondary reflectors are non-abutting.

53. (New) The apparatus of claim 52 wherein the first angle is one of a positive angle or a negative angle with respect to the reference plane and the second angle is the other.

54. (New) The apparatus of claim 52 wherein the first angle is one of a positive angle or a negative angle with respect to the reference plane and the second angle is the same, wherein the first angle has a magnitude that is less than a magnitude of the second angle.

55. (New) The apparatus of claim 21 wherein the first and the second secondary reflectors are abutting.

56. (New) The apparatus of claim 55 wherein the first angle is one of a positive angle or a negative angle with respect to the reference plane and the second angle is the same, wherein the first angle has a magnitude that is less than a magnitude of the second angle.

57. (New) An apparatus for generating an angular sweep of a directed propagation of electromagnetic radiation, comprising:

a first reflector adapted to move over a first angular range of movement, wherein the first reflector is a planar mirror; and

a first and a second fixed reflector to reflect the directed propagation of electromagnetic radiation incident upon and reflected by the first reflector onto the fixed reflectors and back to the first reflector, wherein the first fixed mirror and the second fixed mirror are each a respective planar mirror;

the first fixed reflector is contiguous with the second fixed reflector and the first fixed reflector is angled with respect to the second fixed reflector;

wherein the first angular range of movement of the first reflector creates an increasing sweep of the directed propagation of electromagnetic radiation with each reflection from the first reflector.

58. (New) The apparatus of claim 57 wherein the first mirror rotationally oscillates over the first angular range of movement and over a second angular range of movement, the second angular range of movement being directionally opposite the first angular range of movement.

59. (New) The apparatus of claim 58, further comprising:
a means for reciprocating the movement of the first mirror over the first and the second ranges of movement.

60. (New) The apparatus of claim 57 wherein the movement of the first reflector is adapted to have a variable amplitude.

61. (New) The apparatus of claim 57 wherein the movement of the first reflector is adapted to have a variable frequency.

62. (New) The apparatus of claim 57 wherein a distance between the first reflector and at least one of the fixed reflectors is adjustable.

63. (New) An apparatus for generating an angular sweep of a directed propagation of electromagnetic radiation, comprising:

a first reflector adapted to move over a first angular range of movement; and

a first and a second fixed reflector to reflect the directed propagation of electromagnetic radiation incident upon and reflected by the first reflector onto the fixed reflectors and back to the first reflector;

the first fixed reflector is contiguous with the second fixed reflector and the first fixed reflector is angled with respect to the second fixed reflector;

wherein the first angular range of movement of the first reflector creates an increasing sweep of the directed propagation of electromagnetic radiation with each reflection from the first reflector; and

wherein a distance between the first reflector and at least one of the fixed reflectors is adjustable..

64. (New) The apparatus of claim 63 wherein the first reflector and the at least two fixed reflectors are mirrors.

65. (New) The apparatus of claim 64 wherein the mirrors are planar.

66. (New) The apparatus of claim 63 wherein the first reflector rotationally oscillates over the first angular range of movement and over a second angular range of movement, the second angular range of movement being directionally opposite the first angular range of movement.

67. (New) The apparatus of claim 66, further comprising:

a means for reciprocating the movement of the first reflector over the first and the second ranges of movement.